

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of

Nate Mullen

Serial No. 09/738,024

Filed: December 14, 2000

For: METHOD OF WIRING LIGHTING
FIXTURES TO ACHIEVE UNIFORM
VOLTAGE DROP

Group Art Unit: 3729

Examiner: Rick Kiltae Chang

Docket No. UNIQUE-47354

APPELLANT'S BRIEF
(37 CFR §1.192)

Commissioner for Patents
Via E-File

Gentlemen:

This brief is in furtherance of the Notice of Appeal, filed in this case on April 15, 2009. The fees required under §1.17 for filing this brief are submitted herewith.

I. REAL PARTY INTEREST

The real party in interest in the above-identified matter is Nate Mullen, the inventor.

II. RELATED APPEALS AND INTERFERENCES

There has been one prior appeal of this same application no 09/738,024 originally filed on November 19, 2004. No decision was rendered in the appeal because the examining attorney withdrew the rejection after the appeal brief was filed. Appellant is not aware of any other prior or pending appeals, judicial proceedings or interferences that may be related to, directly affect or be directly affected by or having a bearing on the Board's decision in the pending appeal.

III. STATUS OF CLAIMS

Claims 1 and 2 are pending in the application. Claims 3-17 were previously cancelled.

Claims 1 and 2 have been rejected and are on appeal.

There are no claims which have been objected to or allowed.

IV. STATUS OF AMENDMENTS

No amendments have been submitted since the office action that is the subject of the pending appeal.

V. SUMMARY OF CLAIMED SUBJECT MATTER

The present invention is directed to an improved wiring method for wiring an outdoor electrical lighting system used for equalizing voltage delivered to each fixture in a lighting system. (Specification, page 5, lines 2-7).

According to independent claim 1, the method comprises providing a low voltage electrical source through a homerun wire. (Specification, page 6, lines 1-2). The homerun wire is then connected to wire connectors in an Equalizer Hub™. (Specification, page 6, lines 2-3). Finally, uniform length wire leads from two or more outdoor light fixtures are connected to the wire connectors such that each light fixture is an equal electrical distance from the electrical source. (Specification, page 6, lines 9-14).

Dependent claim 2 adds the limitation that the homerun wire runs from a transformer that is the low voltage electrical source. (Specification, page 6, lines 1-5).

VI. GROUND OF REJECTION TO BE REVIEWED ON APPEAL

1. Whether claim 1 is patentable under 35 U.S.C. § 102(b) over Eisenbraun (US 5,113,325) ("Eisenbraun"). More specifically, whether Eisenbraun discloses providing an electrical source through a homerun wire connected to wire connectors, which are in turn connected to uniform length lead wires from two or more outdoor light fixtures such that each light fixture is an equal electrical distance from the electrical source.

2. Whether claim 2 is patentable under 35 U.S.C. § 103(a) over Eisenbraun in view of Conradt (US 3,740,541) ("Conradt"). More specifically, whether Eisenbraun and Conradt are combinable and whether they teach running the homerun wire from a transformer being a low voltage electrical source.

VII. ARGUMENT

In the Office Action that is the subject of this Appeal, the Examiner rejected the pending claims based upon Eisenbraun (5113325) either alone or in combination with Conradt (3740541). The Examiner reasoned that:

Eisenbraun discloses providing a low voltage electrical source (34) through a homerun wire (col. 3, lines 4-8); connecting said homerun wire to wire connectors in an equalizer hub (col. 3, lines 4-8; PCB is an equalizer hub); connecting uniform length wire leads from two or more outdoor light fixtures to said wire connectors such that each light fixture is an equal electrical distance from the electrical source (col. 2, lines 19-23).

The Examiner further reasoned that although Eisenbraun failed to disclose that the homerun wire runs from a transformer that is the low voltage electrical source:

Conradt disclose [sic] that said homerun wire (17) runs from a transformer (16) and the transformer is the low voltage electrical source (Abstract).

Applicant submits that reliance upon Eisenbraun and Conradt to support the rejection of the pending claims is inappropriate for a number of reasons.

1. Rejection under 35 U.S.C. § 102(b) over Eisenbraun Should Be Withdrawn

Eisenbraun “relates to a light assembly kit including a plurality of light emitting diodes that can be affixed and mounted on articles of clothing.” (col. 1, lines 7-9). Eisenbraun specifically states that the disclosed invention satisfies the need for “a light emitting embellishment kit for garments and the like wherein each light emitting diode is independently wired to a central actuating unit” and “a light emitting diode assembly that

is in a kit form that can easily be installed onto the garment.” (col. 1, lines 45-50). The purpose and scope of the invention in Eisenbraun is so disparate from that of the claimed invention that a person of ordinary skill in the art would not look to Eisenbraun when attempting to create a method for wiring an outdoor electrical lighting system to achieve uniform voltage drop.

Regarding the rejection under 35 USC §102(b), Eisenbraun fails to disclose that which is claimed. For a prior art reference to anticipate in terms of 35 USC §102, every element of the claimed invention must be identically shown in a single reference. *In re Bond*, 910 F.2d 831, 15 USPQ.2d 1566 (Fed. Cir 1990). Contrary to the statements in the Office Action, Eisenbraun fails to identically show every element of the claimed invention. As a clear example, the Office Action cites to column 3, lines 4-8 of Eisenbraun as support for the teaching of a homerun wire. The cited portion of Eisenbraun discusses “cages” for holding batteries against a circuit board and how the cage acts as a terminal in communication with the battery. In fact, nothing in Eisenbraun discusses a homerun wire providing electrical power to an equalizer hub.

Eisenbraun teaches the use of a control circuit board to separately direct the power supply to each of the LEDs. This control circuit board is not the equivalent of the equalizer hub set forth in the claims. The claimed equalizer hub includes wire connectors that accept the homerun wire and the plurality of wire leads such that all are directly connected. As described above, the claimed invention has one homerun wire with separate leads to the plurality of lights. In contrast, Eisenbraun discloses separate control wires running to each of the LEDs. Repeatedly throughout the disclosure,

Eisenbraun discusses this fact.

Col. 1, line 65 thru col. 2, line 1 - "A plurality of flexible wires electrically connect each of the light emitting diodes directly with the central electronic actuation unit such that each light emitting diode is independently actuated by the central actuation unit."

Col 2, lines 16-19 - "Preferably a multi-position switch is incorporated to actuate the actuation unit from the OFF mode to either a flashing mode or a continuously ON mode."

Col. 2, lines 66-68 - "The central actuation unit 26 includes a pre-programmed control circuit board 30 to actuate and deactuate each LED 20.

Col. 3, lines 9-15 - "Preferably, the control circuit board 30 can actuate each LED 20 at a different time for a predetermined amount of time such that any given instant only one LED is illuminated. Other control circuits can be incorporated to flash all the LEDs simultaneously, in pairs, or actuate the diodes in any other pattern."

As these citations demonstrate, Eisenbraun teaches that each LED has a separate wire that runs back to the central acutation unit on the control circuit board for independent control of each LED. This central actuation unit is not the claimed equalizer hub as it controls to which lead wires the electrical power is supplied and does not provide for a direct connection between the wire leads and the power source. As claimed, the present invention includes a single homerun wire to which all of the wire leads from the

light fixtures are connected. This type of connection assures that an equal voltage will reach each light fixture. In contrast, the configuration taught and described by Eisenbraun inherently results in an unequal voltage reaching each LED.

Further, when discussing the length of the wires that connect the LEDs to the central actuation unit, Eisenbraun uses phrases like “substantially the same length” (col. 2, line 21), “approximately equal length” (col. 2, line 62), and “substantially equal” (col. 5, line 6). The use of qualifying words such as substantially and approximately clearly indicate that the lengths do not have to be equal. In the area of clothing embellishments, one is dealing with lengths on the order of five or six inches. In such lengths five inches is approximately equal to six inches.

In contrast, in the area of landscape lighting systems, one is dealing with lengths on the order of twenty-five feet or greater. At such lengths, an acceptable ratio of lengths in Eisenbraun would produce disastrous results when attempting to equalize voltage. At a ratio of 5:6, a twenty-five foot wire lead would be paired with a twenty foot-ten inch wire lead. This difference of more than four feet would result in a significant voltage drop from one light fixture to the next. The difference would only increase at greater lengths. Exact equal length of the wire leads is critical to the voltage equalization of the claimed invention.

In fact, Eisenbraun gives no reason for suggesting substantially or approximately equal lengths for the wires. As mentioned above, the purpose of Eisenbraun’s invention is to allow a consumer to personally install lighted embellishments on an article of clothing. Eisenbraun has nothing to do with equalized voltage or equalized

voltage drop across a plurality of light fixtures. Accordingly, Eisenbraun does not teach all of the claimed limitations of the present invention.

2. Rejection under 35 U.S.C. § 103(a) over Eisenbraun in View of Conradt
Should Be Withdrawn

The Office Action also relies upon Conradt for the teaching of running a homerun wire from a transformer that is the low voltage electrical source. However, Conradt describes how the “electrical energy for the hand rail can be a conventional 115 volt source which is connected through a transformer rectifier 16 to conductors 17 which are connected in parallel to the bulbs 18.” (Col. 2, lines 6-9). This type of connection between the electrical source and the lights is the type of prior art that the present invention was designed to avoid. With the parallel connection, those bulbs that are farthest from the electrical source will receive less voltage than those bulbs that are closest to the electrical source. A straight parallel connection without the other claimed limitations will not provide the advantages of the present invention. Accordingly, Conradt fails to provide the teachings that are absent from Eisenbraun.

CONCLUSION

For the foregoing reasons, Applicant submits that claims 1 and 2 of the instant application are patentable over Eisenbraun and/or Conradt. Therefore, Appellant respectfully solicits the Board to reverse the decision of the examiner finally rejecting claims 1 and 2 and direct the Examiner to pass the application to issuance.

VIII. CLAIMS APPENDIX

1. A method for wiring an outdoor electrical lighting system to achieve uniform voltage drop, comprising:
 - providing a low voltage electrical source through a homerun wire;
 - connecting said homerun wire to wire connectors in an equalizer hub;
 - connecting uniform length wire leads from two or more outdoor light fixtures to said wire connectors such that each light fixture is an equal electrical distance from the electrical source.
2. The method of claim 1 wherein said homerun wire runs from a transformer and the transformer is the low voltage electrical source.

IX. EVIDENCE APPENDIX

None.

X. RELATED PROCEEDINGS APPENDIX

None.

Respectfully submitted,

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